

Nurses Knowledge Regarding Self-Care of Patients with Liver Cirrhosis in Medical Wards at Hospitals

Mohammed T. Ali, Hanaa H. Mukhlif, Rami R. Allo*, Hanady J. Mahmood
College of Nursing, University of Mosul, Mosul, Iraq

Abstract

In nursing care, it is crucial to encourage patients to engage in self-care activities. The nurses assist patients in taking care of themselves for better health and symptom management. The study aimed to assess nurses' knowledge about the self-care of patients suffering from liver cirrhosis in medical wards at hospitals in Mosul city. A descriptive study was adopted, and the study period started from the 17th of November 2023 to the 30th of May 2024. A convenience sample consisted of 150 participants of nurses; the sample was taken from the nurses in medical wards in hospitals. A questionnaire contains the first part, which has demographic data (age, sex, marital status, residence, and service years). The second part of this tool involves (15) questions for nurses' knowledge regarding the self-care of patients with liver cirrhosis. Each question has two relevant statements (yes or no). The analysis data was obtained through descriptive and inferential statistics. In the study, the nurses' age group was (43.3%) between 25-29 years, male (60.7%), and (54.7%) were married, and lived in urban residences. Nurses' knowledge is inadequate in 46.7% of them. Moreover, there is a strong correlation between the service years and the knowledge possessed by nurses. Three-quarters of the nurses who participated in the study had insufficient knowledge about how to take self-care when their patients had liver cirrhosis. A strong correlation was observed between the number of years of employment and the level of knowledge that nurses held. At the same time, a one-way analysis of variance revealed that the other demographic information had no bearing on the expertise of nurses.

Keywords: Liver Cirrhosis, Nurses' Knowledge, Self-Care.

Introduction

Every day, millions of individuals all over the world suffer from liver problems, which is linked to death rates of 21.9 per 100,000 individuals. There is a growing number of patients with cirrhosis, and the majority of them are admitted to medical wards with various comorbidities [1]. With around 2 million fatalities in 2018, liver cirrhosis ranked as the tenth leading cause of death globally [2]. Any chronic liver condition can lead to cirrhosis, which is a fibrotic replacement of liver tissue [3, 4].

Regenerative nodules surrounded by fibrous septa that grow in the liver parenchyma as a result of chronic liver injury are known as liver

cirrhosis. A nodule forms, fibrosis takes place, and liver cell necrosis results in cirrhosis. Impaired hepatocyte function and portal hypertension result from aberrant liver anatomy that disrupts liver blood flow and function [5]. Liver cirrhosis results in the liver developing permanent scarring and impaired blood flow, which prevents the liver from functioning normally. Hepatitis viruses, autoimmune disorders, and alcohol misuse are the main causes [6, 7]. Moreover, in chronic illness, self-care is the process of maintaining health via illness management and activities that promote health [8].

In proactive identification and prompt intervention, nurses play a crucial role as

frontline healthcare providers. Their frequent interactions with patients provide them with a close understanding of their initial cognitive and behavioural states, which makes it easier for them to spot any changes [9, 10]. The two stages of liver cirrhosis are advantageous from the standpoint of nursing care since they require distinctly different approaches to treatment. The prevalence of cryptogenic disease and non-alcoholic fatty liver disease has increased during the last ten years [7, 11].

In nursing care, encouraging patients to engage in self-care tasks is crucial. Helps nurses recognize patients who can benefit from self-care to better manage their symptoms and maintain better health. By treating more patients according to medical healthcare guidelines, nursing care will improve patient concordance and raise the quality of care [12]. Compared to other chronic diseases, cirrhosis patients receive far less attention from nurses, despite the disease's widespread prevalence. Furthermore, in comparison to training in other specialities, nursing education in liver illnesses has been very inadequate [13]. The study aimed to assess nurses' knowledge of patients with liver cirrhosis and determine whether or not their demographic information and nurses' knowledge of patients with liver cirrhosis self-care are related.

Methods

Administrative Arrangement: The study obtained ethics approval from the College of Nursing at the University of Mosul, according to letter No. 217 dated 14th November 2023, to collect the data gathering procedure. All nurses who were able to offer informed consent were allowed to participate in the study voluntarily. Participants were assured of the confidentiality of the data collected.

Design of the Study: The study adopted a descriptive design to meet its objectives. In the medical wards of Mosul City hospitals, the study took place between the 17th of November 2023 and the 30th of May 2024.

Sample of the Study: A convenience sample consisted of 150 nurses. All nurses were selected, and excluded who refused to participate in the study and nurses who were not available at the time of data collection were excluded.

Tool of the Study: A study tool was formulated, and it contains two parts; part one has demographic data such as age, sex, marital status, residence, and service years. Part two of this tool involves fifteen questions for nurses' knowledge about the self-care of liver cirrhosis. Each question has two relevant statements, yes or no. The tool was written in Arabic because the target sample of this study was nurses who spoke Arabic. It is symbolized as one for a correct answer and zero for an incorrect answer. The total degree is equal to 15 degrees, and the score was classified into three levels. Levels were inadequate knowledge (5 degree and less), and moderate knowledge (6-10 degrees). While adequate knowledge (11-15 degrees).

Setting of the Study: The current study was performed in the Hospitals of Mosul City (Al-Salam Teaching Hospital, Abn-Sana Teaching Hospital, Al-Jamhury Teaching Hospital, and Al-Mosul General Hospital). It is a public teaching hospital affiliated with the Nineveh Health Department, located on the right and left sides of Mosul City. The hospitals involve many departments. The hospitals provide medical services to a large number of the population in Mosul City. These hospitals contain an emergency unit and a laboratory. In addition, it provides diagnostic services related to medical and surgical conditions.

Data Collection: The period of the data collection extends from 15th January to 10th March 2024; The nurses in the hospital's medical wards in Mosul City provided the sample. It took fifteen to twenty minutes to complete all of the questions in the constructed interviews with participants who were used to get the data.

Data Analysis: Excel, Microsoft Office 2019, was used to prepare, arrange, and enter

the data. The Statistical Package for the Social Science (Version 26) was then used to analyze the data, which was significant at (P. value \geq 0.05). ANOVA One Way and Pearson's Coefficient Correlation were the two inferential statistics used in this strategy, in addition to descriptive statistics including frequency distribution, mean, standard division, and percentage.

Results

The demographic variables about the nurses were included in this table. The total number of nurses was 150. The table showed that 43.3% of the nurses were in the age range of 25-29 years, (26.7% were aged between 30-34 years. Also, 60.7% were males, while 39.3% were females. The marital status of the nurses shows that a greater percentage are married (54.7%) and 45.3% are single. Most nurses lived in urban areas (80.7%), and regarding service years, less than or equal to five years (62.7%) (Table 1 and Figure 1).

Table 1. Distribution of Demographic Data for Nurses (n=150)

Demographic Data		Frequency	Percent
Age group	From 20-24 years	16	10.7
	From 25-29 years	65	43.3
	From 30-34 years	40	26.7
	From 35-39 years	11	7.3
	From 40 And More Years	18	12.0
	M= 30.61	S.D= 6.73	
Sex	Male	91	60.7
	Female	59	39.3
Marital status	Single	68	45.3
	Married	82	54.7
Residence	Urban	121	80.7
	Rural	29	19.3
Services Year	Less Than or Equal 5 Years	94	62.7
	More Than 5 Years	56	37.3
	M= 5.62	S.D= 5.39	

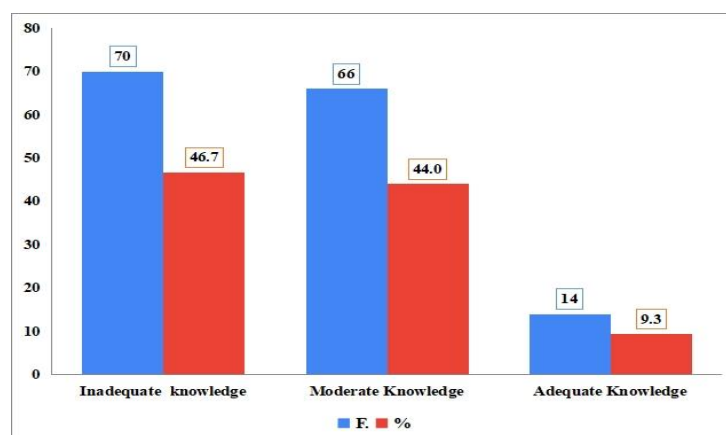


Figure 1. Display the Frequency and Percentage of Nurses' Knowledge of Liver Cirrhosis Patients' Self-Care. The Majority of Nurses Possess Insufficient (Inadequate) and Moderate Knowledge.

The table above shows the nurses' answers about self-care for patients with cirrhosis. The incorrect answers were related to the diet that patients with cirrhosis should follow, changes in stool colour, the importance of a diet containing fibre, how to prevent constipation,

as well as the drug dosage. In addition to that, monitoring sleep and its disorders, harmful effects of animal protein, performing an ultrasound examination every six months to determine liver cancer, and finally, whether cirrhosis leads to death or not (Table 2).

Table 2. Distribution of Nurses' Answers to Questions Related to Self-Care of Liver Cirrhosis

Questions	Incorrect answer		Correct Answer	
	F.	%	F.	%
The diet that patients with cirrhosis should follow includes appropriate amounts of salt.	109	72.7	41	27.3
Is the recommended amount of alcohol consumed per week for patients with cirrhosis a small percentage?	66	44.0	84	56
Should patients receive the A and B vaccines if they have cirrhosis that is not related to hepatitis B?	47	31.3	103	68.7
Cirrhosis patients should pay attention to what color they may have bleeding	36	24.0	114	76
Is cirrhosis caused by hepatitis B or hepatitis C treated by taking antiviral medications after consultation?	42	28.0	108	72
Should the patient be advised to alter their diet if their stool becomes tarry and black in color?	130	86.7	20	13.3
The high-fibre diet is the diet that cirrhosis patients should choose.	109	72.7	41	27.3
Should patients with cirrhosis produce stool every day to prevent constipation?	132	88.0	18	12
Lactulose (Dufalac) should be taken in one fixed dose every week	114	76.0	36	24
If cirrhosis patients exhibit odd behaviour, aberrant sleep cycles, or cognitive impairment, they should self-monitor their status.	121	80.7	29	19.3
Should patients with hepatopathy (hepatic coma associated with cirrhosis) reduce their intake of animal protein only?	93	62.0	57	38
Every six months, patients with cirrhosis should get an ultrasonography examination to assess their liver function.	107	71.3	43	28.7
Omeprazole is a drug that should not be contraindicated in patients with cirrhosis.	82	54.7	68	45.3
Liver cirrhosis leads to death.	125	83.3	25	16.7
Chronic hepatitis does not in all cases lead to cirrhosis	69	46.0	81	54

F: Frequency, %: Percent

This table shows a significant relationship between nurses' knowledge about self-care and

their years of service. The variables of age, Sex, marital status, and residence did not affect

nurses' knowledge using one-way analysis of variance (Table 3).

Table 3. Analysis of Variances between Nurses' Knowledge and their Demographic Data

Demographic Data		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Age group	Between Groups	3.847	2	1.924	1.477	0.232
	Within Groups	191.486	147	1.303		N.S.
Sex	Between Groups	0.526	2	0.263	1.096	0.337
	Within Groups	35.268	147	0.240		N.S.
Marital status	Between Groups	1.228	2	0.614	2.511	0.085
	Within Groups	35.945	147	0.245		N.S.
Residence	Between Groups	0.043	2	0.022	0.135	0.874
	Within Groups	23.350	147	0.159		N.S.
Services Year	Between Groups	1.304	2	0.652	2.836	0.049*
	Within Groups	33.789	147	0.230		S.

df: degree of freedom, *Standard Deviation*; *F*: *F* for ANOVA test, *: Statistically significant at $p \leq 0.05$.

Discussion

A balanced diet that emphasizes high protein, low fat, low to moderate salt, and increased fibre content should be recommended to patients with cirrhosis by nurses, regardless of the aetiology of the condition. Diets should be modified based on each patient's unique requirements [13]. Ultimately, nurses ought to counsel patients to steer clear of hypomobility and engage in moderate exercise whenever feasible, since heightened physical activity averts or mitigates sarcopenia and could perhaps have advantageous impacts on the progression of cirrhosis [14,15].

According to the results of this study, most of the sample consisted of men, and fewer than half were in their twenties. Living in metropolitan regions, half of the sample was married. Half of the participants had fewer than five years of service experience. In the same line, the survey conducted earlier found that 47.50 percent of the nurses belonged to the age range of 20 to less than 30 years old [16]. Over 50% of nurses were married. Approximately 26.25% of the nurses had one to five years or less of experience. According to the study results, among nurses, 46.7% had the greatest

percentage of inadequate knowledge, 44% had moderate knowledge, and 9.3% had good knowledge, as shown in Figure 1. Regarding the nurses' answers to the knowledge questions for self-care, nurses did not have information about the diet that patients with cirrhosis should follow, which should be low in salt (72.7%), the stool colour turning black (86.7%), or changing the diet. Also, the food related to fibre (72.7%), and their knowledge about constipation. Passing stool every day to prevent constipation (88%).

In addition, the importance of taking lactulose in a fixed dose once daily, not weekly (76%). However, cirrhosis patients need to monitor their condition in the hospital if they have abnormal sleep cycles, poor thinking, and strange behaviour (80.7%). And reducing the intake of animal protein for patients with hepatic disease (hepatic coma associated with cirrhosis) (62%). Participants indicated that, although the examination is done to detect liver cancer, individuals with cirrhosis should have an ultrasound test every six months to assess liver function (71.3%). They did not know about the importance of using omeprazole for patients with liver cirrhosis (54.7%). Of the

participants, 83.3% stated that liver cirrhosis leads to death.

As for the rest of the questions, the participants' answers were correct regarding the number of drinks per week, the importance of the viral hepatitis vaccine, in addition to the patient's suffering from bleeding, and how to give treatment. Chronic hepatitis does not necessarily cause cirrhosis of the liver. These findings might be explained by the fact that most patients follow up on their health conditions at outpatient clinics, and hospital nurses have limited opportunities to meet with patients within the hospital to emphasize the value of self-care. An alternative study stated that in both hospital and primary care settings, nurses have substantial autonomy in providing treatment for patients with acute and chronic diseases [17].

In addition, when handling cirrhosis patients, both inpatient and outpatient, multidisciplinary teams should include nurses with a specialized understanding of liver diseases [11]. The level of knowledge in the study agrees with an earlier study who have mentioned that (21.35%) was satisfactory knowledge, while (78.65%) knowledge level was unsatisfactory [16]. Nurse-led clinics are still uncommon in the treatment of patients with liver cirrhosis, which is typically handled by doctors. Nonetheless, prior research on nurse-led clinics and liver cirrhosis has indicated that these clinics may improve patient compliance with doctors' orders and medical care [12].

The results showed that the number of years of service and nurses' self-care expertise are

positively correlated and statistically significant. Their level of knowledge regarding self-care for patients with liver cirrhosis did not affect the other demographic characteristics, which include age, sex, marital status, and place of residence. An association between years of service and nurses' knowledge is positively correlated, and the results of this study's important link may be explained by the information that nurses learned while caring for patients with liver cirrhosis in internal wards.

Conclusions

According to study findings, three-quarters of the nurses who participated in the study had insufficient knowledge about how to provide self-care when their patients had liver cirrhosis. They also knew very little about the medication dosage, changes in stool color, changes in diet that patients with cirrhosis should follow, and how to prevent constipation. Furthermore, keeping an eye on sleep issues, the negative effects of animal protein, doing an ultrasound scan every six months, and, lastly, determining whether or not cirrhosis results in mortality. On the other hand, a strong correlation was observed between the number of years of employment and the level of knowledge that nurses held. At the same time, a one-way analysis of variance revealed that the other demographic information had no bearing on the expertise of nurses. Encouraged and supported nurses to take part in national and international conferences, training sessions, and workshops related to the Ministry of Health that focused on nursing care for patients with liver cirrhosis.

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